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IN THE SPECIFICATION

Please amend the following cited specification paragraphs:

[2] Electric drive motor systems for a vehicle drive axle assembly typically do not have the capability to efficiently control the complete range of torque and speed requirements of a wheel driven vehicle. Heavy duty vehicles, such as trucks and buses for example, require a wide range of torque and speeds to accommodate the often strenuous and diverse duty cycles to which these types of vehicles are subjected. Traditionally, in order to accommodate these torque and speed range requirements, either a complex transmission is required or a large capacity variable speed electric motor must be used as a power source. Either of these solutions is expensive. A further disadvantage is that this large capacity power source has to use a conventional axle gear differential to transfer the torque to the driving wheels on the axle assembly, and the combination of a the conventional differential and large capacity power source is difficult to install within the available packaging space.

[6] In one disclosed embodiment, the drive axle assembly includes a center differential assembly that drives a pair of axle shafts. The axle shafts drive laterally spaced wheels. The planetary gear set is operably coupled to the differential assembly and includes a sun gear, a plurality of planet gears in meshing engagement with the sun gear, a planet carrier that supports the planet gears, and a planetary ring gear that is in meshing engagement with the planet gears. A first drive motor drives the sun gear and a second drive motor drives the ring gear. The planet

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carrier comprises ~~an~~ the output to the differential assembly. The first drive motor provides high output torque that is necessary for acceleration by taking advantage of a high gear ratio reduction. The second drive motor provides for high output speed capabilities by taking advantage of a low gear ratio reduction. The gear ratio is variable when the first and second drive motors are used in conjunction with each other.

[12] A variable ratio drive system is generally shown at 10 in Figure 1. The drive system 10 powers a drive axle assembly 12 for a vehicle (not shown). The drive axle assembly 12 includes a center differential 14 that is operably coupled to first and second axle shafts 16. The axle shafts 16 drive a pair of laterally spaced vehicle wheels 18 about a lateral axis of rotation 20. The axle shafts 16 are substantially enclosed within an axle housing 22. The differential 14 is substantially enclosed within a carrier housing 24 that is formed as part of the axle housing 22, or bolted to or otherwise attached to, the axle housing 22.

[13] The differential 14 includes first and second differential case halves 26a, 26b that are bolted together. The first and second differential case halves 26a, 26b support a differential spider 28. The differential spider 28 is shaped like a cross, i.e. the differential spider has four (4) leg portions 30 (only two (2) are shown). Each leg portion 30 supports a differential pinion gear 32. Thus, there are four (4) differential pinion gears 32 in the differential 14 (only two (2) are shown). The differential pinion gears 32 are in meshing engagement with first and second side gears 34. The first and second side gears 34 are splined to the first and second axle shafts 16,

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respectively. The differential case halves 26a, 26b, differential pinion gears 32, and sides gears 34 cooperate to provide for speed differentiation between the axle shafts 16 under predetermined conditions. For example, if the vehicle is maneuvering through a turn, the outside wheel must turn at a faster rotational speed than the inside wheel. The operation of a differential assembly 14 is well-known in the art and will not be discussed in any further detail.

[17] The planet carrier 50 includes a main body portion 62 defining a center opening that receives the pinion shaft portion 42 of the pinion gear 38. Each of the planet gears 48 is rotatably supported on a planet pin 64 that is fixed to the planet carrier 50. The planet carrier 50 directly drives the pinion gear ~~38~~ 36 via a splined connection 66 between the center opening and pinion shaft portion 42. The pinion gear ~~38~~ 36 is supported by first set of bearings 68 positioned between the pinion shaft portion 42 and the first housing half 54a and by a spigot bearing 70 positioned on an opposite side of ~~the pin a pinion-gear head-portion~~ 44 from the first set of bearings 68. The spigot bearing 70 is positioned between one of the first or second differential case halves 26a, 26b and the pinion gear 38. Preferably one bearing from the first set of bearings 68 abuts against the main body portion 62 of the planet carrier 50.

[23] In the configuration shown in Figure 1, the first 78 and second 84 motor axes of rotation extend in a longitudinal direction. The first 78 and second 84 motor axes of rotation are transversely orientated relative to the lateral axis of rotation 20 about which the axle shaft 16 and wheels assemblies 18 rotate. This configuration is preferred as the planetary gear set and

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associated first 72 and second 74 drive motors are easily incorporated into a standard drive axle configuration with a ring gear 40 and pinion gear 38 gear-input to the differential 14.

[24] Figure 2 shows an alternate embodiment of a variable ratio drive system 100 for a drive assembly 102. This variable ratio drive system 100 operates in a similar manner to the system described above with regard to Figure 1, however, this configuration includes a different differential, a different planetary gear set configuration, and a different drive motor orientation. The drive axle-assembly 102 of Figure 2 includes a center differential 104 that is operably coupled to first and second axle shafts 106. The axle shafts 106 drive a pair of laterally spaced vehicle wheels 108 about a lateral axis of rotation 110.

[27] The differential 104 includes first and second differential case halves 118a, 118b that are bolted together. The first and second differential case halves 118a, 118b support a differential spider 120. The differential spider 120 is shaped like a cross, i.e. the differential spider 120 has four (4) leg portions 122 (only two (2) are shown). Each leg portion 122 supports a differential pinion gear 124. Thus, there are four (4) differential pinion gears 124 in the differential 104 (only two (2) are shown). The differential pinion gears 124 are in meshing engagement with first and second side gears 126. The first and second side gears 126 are splined to the first and second axle shafts 106, respectively. The differential case halves 118a, 118b, differential pinion gears 124, and sides gears 126 cooperate to provide for speed differentiation between the axle shafts 106 under predetermined conditions as discussed above.

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[30] The planet carrier 132 is attached to one of the differential ~~housing~~-case halves 118a, 118b. Each of the planet gears 130 is rotatably supported on a planet pin 142 that is fixed to the planet carrier 132. The planet carrier 132 directly drives the differential 104 via the connection between the carrier 132 and the differential case halves ~~half~~ 118a, 118b.

[36] In the configuration shown in Figure 2, the first 152 and second 162 motor axes of rotation extend in a ~~longitudinal~~-lateral direction. The first 152 and second 162 motor axes of rotation are generally parallel to the lateral axis of rotation 110 about which the axle shafts 106 and wheel ~~assemblies~~-108 rotate.